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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Advanced Television Systems	)	
and Their Impact upon the	)	MM Docket No. 87-268
Existing Television Broadcast	)	
Service	)	
	)	

To: The Commission

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JOINT COMMENTS

Media General, Inc. ("Media General")[1/] and Park Acquisitions, Inc. ("Park") and (collectively, the "Commenters")[2/], by their attorneys, hereby submit their joint comments[3/] concerning the digital television ("DTV") allotment and assignment principles proposed by the Commission in the above-captioned proceeding.[4/] Media General and Park are

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1/ Media General, Inc. is the ultimate parent company of the licensees of the following television stations: WCBD-TV, Charleston, South Carolina; WFLA-TV, Tampa, Florida; and WJKS(TV), Jacksonville, Florida.

2/ Park is the ultimate parent company of the licensees of the following television stations: WNCT-TV, Greenville, North Carolina, and TV Translator W05BI, Morehead City, North Carolina; WBMG(TV), Birmingham, Alabama, and TV Translator W04CB, Sylacauga, Alabama; WSLS-TV, Roanoke, Virginia; WTVR-TV, Richmond, Virginia; WUTR(TV), Utica, New York, and TV Translator W63AE, Oneonta, New York; WDEF-TV, Chattanooga, Tennessee; WJHL-TV, Johnson City, Tennessee; WTVQ(TV), Lexington, Kentucky; and KALB-TV, Alexandria, Louisiana. A subsidiary of Park also is the proposed assignee, pursuant to an application pending at the Commission of WHOA-TV, Montgomery, Alabama.

3/ Media General and Park have applications pending before the Commission for consent to the transfer of control of Park's television stations to Media General.

4/ Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, Sixth Further Notice of Proposed Rulemaking, MM Docket No. 87-268, FCC 96-317 (Aug. 14, 1996) ("Sixth Notice").

signatories to the comments filed by the Broadcast Caucus and Media General agrees in principle with the comments filed by Scripps Howard Broadcasting Company. Media General and Park now submit these comments in order to clarify their positions on certain issues.

The eventual transition to DTV from the current NTSC environment will be a massive undertaking involving the joint efforts of all broadcast television licensees, the Commission and consumers. In the Sixth Notice, the Commission confronts the difficult task of attempting to assign DTV channels to all existing television licensees with the goal of replicating existing NTSC coverage areas.

In an undertaking of such proportions, pleasing all licensees would be impossible. For example, Media General and Park own or will own a total of thirteen television stations, primarily on the east coast. Yet, there is great variation in the location, terrain, facilities and coverage of these stations. The stations run the gamut from VHF to UHF, from small market to large market, and from flat terrain to Appalachian country. Several of the stations employ TV translators to compensate for terrain anomalies. Obviously, given the wide range of issues which may affect each station, neither the Commission's proposed table of allotments nor that put forth by the Broadcasters Caucus will result in an optimal DTV allotment for all of the stations owned by the Commenters. Nevertheless, the Commission's proposed table of DTV allotments exposes at least three distinct, but interrelated issues that must be addressed before the Commission develops a final approach for the transition to DTV.

1. Technical Assumptions

The bedrock of the Sixth Notice is the Commission's technical assumptions about how television stations will function in a DTV environment. The primary problem with the Commission's technical assumptions is that they are based on computer models and brief tests, and do not take into account the real-world difficulties that broadcasters will face in the transition to DTV. In its allotment plan, the Commission proposes to use certain VHF channels (7-13) and a significant portion of UHF channels (14-51) for DTV transmission. Thus, most broadcasters will receive a UHF DTV channel, even if they currently operate on a VHF channel. Licensees now broadcasting on VHF channels but assigned UHF DTV channels will be forced to operate at power levels that may not be technically feasible with existing transmitters in order to meet the Commission's service-area replication goal. Conversely, other stations (sometimes within the same market as those assigned huge power levels) have been assigned minuscule transmitting power based on the Commission's assumptions regarding noise reduction, the dipole factor and receiver antenna gains.[5/] There is no guarantee that stations operating with power levels at either end of the spectrum actually will be able to achieve the results desired by the Commission.

For example, in the Tri-Cities, Tennessee, market, Park owns WJHL-TV, which operates on NTSC channel 11, with an effective radiated power ("ERP") of 245 kW. The

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5/ The Commission's table of allotments does not specifically deal with situations where stations currently serve their audience with TV translators or LPTV stations. While the Commenters understand that certain LPTV and TV translators will be displaced permanently by DTV, the Commenters also believe that LPTV and TV translator stations will remain an integral part of broadcasting following the transition and the Commission should explicitly permit broadcasters to negotiate with these parties to provide greater transmission of their DTV signal.

FCC has assigned WJHL-TV DTV Channel 12, with an ERP of 8.1 kW. By contrast, WCYB-TV, another station in that market, which operates on NTSC channel 5 with an ERP of 83 kW, has been assigned DTV Channel 23, with an ERP of 3131.7 kW. This huge disparity in power raises two questions. The first is whether WCYB-TV will be capable of broadcasting at 3131.7 kW from a UHF DTV allotment. The second is whether, given the required signal-to-noise rations, the lack of testing, and the nature of DTV signal degradation, a higher ERP is necessary for WJHL-TV to replicate its existing signal area. Only experience will determine whether these power disparities are feasible in actual DTV transmissions. See, e.g. Engineering Statement of DuTreil, Lundin & Rackley, Inc. at 1-3.

As the Tri-Cities market example discloses, while the Commission's assigning of dramatic power differences may have been necessary to create a fully-replicated DTV table of allotments, the technical assumptions underlying those figures have not been subjected to real-world testing to any significant degree. Accordingly, the Commenters urge that the Commission equalize and limit the power of all DTV allotments to 500 KW for the bulk of the transition period. This power level will ensure that the technical assumptions regarding power, interference, interference from land mobile radio, noise reduction and reception underlying the proposed allotment table will be tested before a final decision is made. Additionally, by equalizing and limiting power initially, broadcasters will have greater flexibility to increase or decrease power once transition has ended.[6/]

6/ Not reserving DTV channels for presently vacant commercial allotments also will provide greater flexibility without sacrificing existing NTSC service.

2. Time Frame

The Sixth Notice reveals that the Commission is in a hurry to implement the transition to DTV. It is under pressure from Congress to return a chunk of usable and saleable spectrum that can be sold at auction. Analysis of the proposed DTV table of allotments, however, counsels against a hasty transition. In its haste, the Commission has consigned VHF channels 2-6 and UHF channels 52-69 for resale, ostensibly for technical reasons. As the comments of the Broadcast Caucus indicate, however, these channels are not technically inappropriate for DTV operation and both sets of channels could be used during the transition period.

To decide now what spectrum to return would limit the flexibility of the Commission and broadcasters to address problems that already have been identified (e.g. co-channel interference) and those that have not been identified yet but are sure to arise. The transition should be as flexible and fluid as possible. Extending the transition period and permitting licensees to operate on all available channels will guarantee that a more efficient and technically-assured repacking of the spectrum will occur, and could allow stations to return to their existing NTSC channel at the conclusion of the transition period. See Engineering Statement of DuTreil, Lundin & Rackley, Inc. at 3-5. Moreover, the Commission's inappropriately hasty transition schedule risks compromising existing NTSC service as broadcasters struggle with changing channels and public loses track of their favorite stations and programs.

3. Experience

The full development and maturity of NTSC television transition has taken almost a half-century.[7/] The Commission now proposes to impose an equally dramatic change on broadcasters and the general public in one-tenth that time. As described above, however, resolving the unresolved and undiscovered issues of the transition to a DTV environment will require time and experience as broadcasters test DTV transmission systems in regions of widely differing terrain and population. Broadcasters already have initiated this cooperative effort in numerous Regional meetings, through the Broadcasters Caucus, and through the testing of model DTV stations in Washington, D.C. and Charlotte, North Carolina. The Commission must allow broadcasters to build a foundation of information to refine DTV before final power limits and assignments are imposed.

One key to a successful transition is limiting the variables that may affect DTV, so that problems may be isolated and resolved more easily. Thus, the Commenters have suggested a power limit on all DTV allotments in order to eliminate the power variable. The most potentially detrimental variable, of course, is the DTV transmission standard itself. The Commenters therefore fully support adopting the Grand Alliance standard as the backbone of the transition. Without this standard, neither broadcasters nor consumers can be confident that the problems of the transition stem from a common source or that a common solution is available.

7/ Among the separate developments in this process were field strength charts, TASO studies, color television, circular polarization, stereo, and picture transmission/reception.

CONCLUSION

The Commission's proposed DTV table of allotments exposes the potential problems inherent in imposing upon broadcasters a change that affects every portion of their business without permitting time and experience to influence the allotment decisions. The Commenters believe that the Commission should proceed toward transition at a more thoughtful pace. Additionally, the Commission should limit the power of all DTV stations to 500 kW until its is proven that significantly higher and lower transmission powers will be effective. Furthermore, the Commenters strongly believe that the Commission must adopt the Grand Alliance transmission standard. Having a set standard will help broadcasters and the Commission discover and eliminate DTV problems and will reduce the burden on consumers.

The success of DTV is not foreordained simply because technology permits digital transmission. Only a transition that capitalizes on information gained during the transition

itself can ensure that DTV succeeds. The Commission should not bind itself to results that may not be supported by the assumptions that originally generated the results.

Respectfully submitted,

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Dated: November 22, 1996

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A Subsidiary of A.D. Ring, P.A.

TECHNICAL STATEMENT
IN SUPPORT OF JOINT COMMENTS OF
MEDIA GENERAL, INC. AND PARK ACQUISITIONS, INC.
ON THE SIXTH FURTHER NOTICE
OF PROPOSED RULE MAKING

This Technical Statement was prepared on behalf of Media General, Inc. and Park Acquisitions, Inc. in support of Joint Comments on the *Sixth Further Notice of Proposed Rule Making* in MM Docket No. 87-268. This proceeding concerns advanced television systems and their impact upon the existing television broadcast service. In the FNPRM the FCC has proposed an allotment table for digital television (DTV) assignments, with associated effective radiated powers (ERP) to replicate existing coverage.

If replication of existing service is the real goal for DTV service, then it is believed all stations should return to their present NTSC channels for the final DTV operations. Returning to the current channel is the best means of insuring present coverage. It will involve less power, be more spectrum efficient, cause less interference, have less impact on LPTV service, and still permit the possible recapture of spectrum for other uses in the future.

As is evident with the FCC's proposed DTV allotment table, in-band DTV allotments have significantly lower power than the NTSC counterpart. However, out-of-band allotments involving NTSC VHF going to DTV UHF, encounter significant power increases in an attempt to replicate the VHF coverage. For instance, there are 270 low VHF NTSC assignments in the FCC's proposed DTV allotment table. The average NTSC ERP for these assignments is 87.4 kilowatts (kW). The average antenna HAAT is 433 meters (1420 feet). The FCC allotted high VHF DTV channels to 6 of these assignments, and UHF DTV channels to the remainder. The average DTV ERP for the 6 high VHF allotments is 17.2 kW. The average DTV ERP for the 264 UHF allotments is 3521 kW.

There are 376 high VHF NTSC assignments in the FCC's proposed DTV allotment table. The average NTSC ERP for these assignments is 266 kW, and the average antenna HAAT is 433 meters (1420 feet). The FCC allotted low VHF DTV channels to 4 of these assignments, high VHF DTV channels to 57 of the assignments, and UHF DTV channels to the remainder. The average DTV ERP for the 4 low VHF allotments is 2.3 kW. The average DTV ERP for the 57 high VHF channels is 5.6 kW. For the 315 UHF DTV channels, the average ERP is 1715 kW.

The average TV station going from a low VHF channel to a UHF DTV channel will require its ERP to be increased from 87.4 kW (peak) to 3521 kW (average) in order to replicate the present coverage. The high VHF station going to a UHF DTV channel will require its ERP to

be increased from 266 kW (peak) to 1715 kW (average) in order to replicate the present coverage. From the above, it is evident that staying in-band will require less power. Going from a VHF channel to a UHF channel will require substantially more power to replicate existing service.

It is not practical to try and replicate the superior VHF propagation characteristics with brute force UHF power. The best way to replicate existing service is to use the existing channel. The final DTV operation on the current NTSC channel will be at significantly less power than the current NTSC operation, resulting in lower operating costs. With less power, there will be less interference on the channels, providing opportunities for improvement in service, or the addition of new or relocated stations. Overall, it makes the most sense for each station to remain on the present channel for the DTV operation.

The obvious question is how to accommodate the transition from NTSC to DTV. It is suggested that each station be assigned a second channel for DTV use during the transition period, similar to what has been proposed by the FCC. It is proposed that all VHF stations return to the current VHF channel for the final DTV operation and ultimate DTV replication of its present NTSC coverage. It is further proposed to employ transmitting facilities for the FCC's proposed UHF DTV channel based on replication of the station's current NTSC Grade A contour. The service within this NTSC contour is considered to represent the "heart" of each station's coverage. Once sufficient DTV

sets are in the public's hands, then the stations will convert the current VHF NTSC channels for DTV use. The UHF DTV loaner channel can then be returned.

As noted above, the average NTSC ERP and antenna HAAT for the 270 low VHF assignments is 87.4 kW and 433 meters. For these transmitting facilities, the predicted Grade A (68 dBu) contour extends approximately 61.3 kilometers. To replicate the low VHF NTSC f(50,50) Grade A contour with the DTV noise limited f(50,90) 43.8 dBu contour requires a DTV ERP of only 2.5 kW in the UHF band. This is substantially less than the 3521 kW required to replicate the existing NTSC Grade B service area.

The average NTSC ERP and antenna HAAT for the 376 high VHF assignments is 266 kW and 433 meters. The predicted Grade A (71 dBu) contour for these transmitting facilities extends approximately 71.8 kilometers. To replicate the high VHF NTSC f(50,50) Grade A contour with the UHF DTV noise limited f(50,90) 43.8 dBu contour requires a DTV ERP of only 14 kW. This power is significantly less than the 1715 kW required to replicate the existing NTSC Grade B coverage area.

Under the above procedure, it is obvious that much lower power is possible for the commencement and orderly transition from NTSC to DTV. Hence, there will be less interference among stations, and less impact on LPTV use. In addition the cost of the equipment to be used during the interim DTV transition period will be much more reasonable.

In summary, retention of the low VHF channels (2 through 6) for TV use is requested. Furthermore, the FCC should consider the use of UHF DTV channels during the interim transition period based upon replication of the present Grade A coverage. Replication of the current NTSC Grade B coverage would occur with the final DTV operation on the current VHF channels.

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